MEAN LAKE LEVELS DURING MARCH, 1928

By United States Lake Survey [Detroit, Mich., April 3, 1928]

The following data are reported in the "Notice to Mariners" of the above date:

| Data | Lakes 1 | | | |
|--|-------------------------|--------------------------|-------------------------|---|
| | Superior | Michigan and Huron | Erie | Ontario |
| Mean level during March, 1928: Above mean sea level at New York Above or below— | Feet 601. 72 | Feet 578. 93 | Feet 571. 50 | Feet 245. 97 |
| Mean stage of February, 1928 Mean stage of March, 1927 Average stage for March last 10 | -0.16 +0.42 | +0.15 +0.45 | -0. 23 +0. 38 | $ \begin{array}{r} -0.02 \\ +0.26 \end{array} $ |
| years | +0.44 -0.60 +1.53 | -0.39 -4.02 +1.39 | +0.16 -2.35 +1.48 | +0.65 -1.84 +1.83 |
| Average departure (since 1860) of the March level from the February level | -0.10 | +0.14 | +0. 19 | +0.26 |

¹ Lake St. Clair's level: In March, 1928, 573.18 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, MARCH, 1928

By J. B. KINCER

General summary.—During the first decade, aside from some delay by wet soil to field work in the Southeast, particularly in Alabama, Georgia, and South Carolina, the weather, in general, favored outside operations throughout the South, and preparations for spring planting made good advance. Toward the close of the period there was some delay by showers, but in the trans-Mississippi States from Kansas and Missouri southward the weather was ideal for spring work, while the general warmth, light to moderate showers, and abundant sunshine promoted rapid growth. Some cotton was planted in Florida and this work was about half done in the lower Rio Grande Valley of Texas. In the eastern central-valley areas continued wet soil prevented active field work and there were further reports of unfavorable freezing and thawing conditions, particularly in the Ohio Valley section. Showers were helpful in some western sections and mild weather favored livestock interests.

During the second decade, frequent rains and wet soil, followed by unusually cold weather for the season, made a generally unfavorable period for farm operations in Southern States, although the increased soil moisture was favorable in some parts. The cold weather did little or no harm in the Southeast and east Gulf districts, but in the Southwest, particularly in Texas and parts of New Mexico, there was considerable damage to tender vegetation and some harm to fruit bloom. The period was also unfavorable in the Ohio Valley States, where the soil continued mostly too wet to work and freezing and thawing were again detrimental to grains and meadows. In the Great Plains States and the Southwest additional and generous moisture was of benefit and the absence of storms favored livestock. Fruit trees were still beneficially retarded, with bloom of early varieties reported north only to central portions of the east Gulf States and to South Carolina.

During the last decade mostly good advance of seasonal operations was made in Southern States, with especially favorable weather prevailing in the west Gulf area and adjacent sections to the northward. In the Ohio Valley the generally warm weather. with mostly light to moderate precipitation permitted good progress in field operations, although near the close of the month there was further delay by snow or glaze. Farm work and crop growth were stimulated in the Great Plains, with plowing, disking, and seeding active in all parts. The mild weather favored lambing in more western areas and the range

benefited from higher temperatures. Rains were useful

in California wherever they were sufficiently heavy.

Small grains.—During the first decade the ground continued bare of snow over the principal Wheat Belt, with further complaints of unfavorable freezing and thawing conditions in the east. In the western belt conditions continued more favorable with the crop showing some greening as far north as extreme southern Iowa. In the eastern half of Kansas wheat was mostly very good to excellent, but generally poor to only fair in the west. The condition of the crop was mostly satisfactory in other western areas, but in the Middle Atlantic States the weather was generally unfavorable. During the second decade there was a continuation of unfavorable conditions in the Ohio Valley with further freezing and thawing reported. In the middle Atlantic area considerable additional moisture was received, which was beneficial in some sections, while grains made fairly good advance in the Southeastern States. In the Ohio Valley and lower Lake region conditions were again unfavorable for winter wheat, but in the far Northwest generally favorable weather prevailed.

During the last decade high temperatures and light precipitation stimulated the growth of small grain crops and promoted field work. Progress of wheat in Oklahoma was mostly satisfactory and in Kansas the crop was very good to excellent, except in the extreme northwest. Further winter killing was reported from Ohio Valley States, but winter grains were progressing in more eastern portions and in the far West the weather favored

growth and development.

Miscellaneous.—During the first decade pastures made slow growth in the Southeast, while temperature conditions were more favorable in the middle Atlantic area, the Ohio Valley, and the lower Lake region. West of the Mississippi River conditions also improved and mild weather in central-northern portions favored livestock, with much open grazing possible. During the second decade pastures showed some improvement in the Southeast, but continued freezing and thawing made conditions still unfavorable for grass and alfalfa in the Ohio Valley and Lake region. Ranges, alfalfa, and grass were mostly satisfactory in the West and livestock were in good condition generally, with lambing satisfactory and some shearing started in the far Northwest. During the last decade pastures continued improvement in the Southeast and general betterment of the range was noted in most western areas, although there was some local need of moisture. Livestock were good, with the mild weather especially favorable for young lambs and calves.

Planting potatoes became rather general throughout the South during the month with seeding begun as far north as New Jersey at the close. Truck crops made slow growth in southern sections early in the month while cool weather and wet soil retarded planting in the Southeast. Favorable conditions prevailed in the west Gulf area and truck and garden crops made good advance. There was some damage by frost in parts of the west Gulf States during the second decade, but in eastern portions there was little or no injury, although there was some check in growth. The cold weather during the last decade caused practically no damage and at the close of the month truck crops were doing well. Citrus bloom was heavy in Florida and groves were much improved and generally in good condition in California at the close of the month. Deciduous fruits were favorably retarded during most of the month, although toward the close there was a rapid reaction to warm weather, but lower temperatures again had checked development at the close of the period.